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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,131	04/08/2004	Robert D. Earnest	ERD-10202/16	8945
25006	7590	10/10/2006	EXAMINER	
GIFFORD, KRASS, GROH, SPRINKLE & CITKOWSKI, P.C			PATTERSON, MARC A	
PO BOX 7021			ART UNIT	
TROY, MI 48007-7021			PAPER NUMBER	

1772

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/821,131

Applicant(s)

EARNEST, ROBERT D.

Examiner

Marc A. Patterson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 22-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 22-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not provide support for a fabric that is disposed upon an exterior surface of a vessel, and, as in amended Claim 1, is not exposed on another surface of the vessel and is embedded in the vessel. Figure 4 depicts a fabric that is disposed upon an exterior surface of a vessel, but it is not embedded in the vessel.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 16, 22 – 28 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Guckert et al (U.S. Patent Publication 2002/0003004 A1).

With regard to Claims 1 – 4, Guckert et al disclose a vessel which is a tube or cylinder (paragraph 0039) which is thermally insulated (paragraph 0038) comprising a body of polymeric material defining the vessel (polyacrylonitrile; paragraph 0038) and a body of fabric which is the innermost layer of the vessel (at least one layer of the fabric is wrapped around a mandrel, therefore the innermost layer comprises fabric; paragraph 0016); the layer is therefore embedded in the polymeric material; the ends of the layers are exposed upon a surface of the vessel comprising the end face (paragraph 0034), as shown in Figure 1; the fabric is therefore partially embedded; because the fabric is the innermost layer, the fabric is exposed on a first surface of the wall and is not exposed on the opposed second surface, which is the outermost surface; the fabric comprises polyacrylonitrile (paragraph 0038), which are filaments (threads; paragraph 0023) which are carbonized (paragraph 0023) and is therefore a refractory fabric which also provides acoustic insulation.

With regard to Claim 5, the body of refractory fabric has a thickness in the range of 1 – 50 millimeters (paragraph 0037).

With regard to Claims 6 – 7, the body of polymeric material is a tube, and is therefore a duct, as stated above, and is configured to retain a fluid or direct a stream of gaseous fluid (hot gas; paragraph 0022).

With regard to Claims 8 and 11, the fabric disclosed by Guckert et al comprises a laminate of fabric layers (paragraph 0040); fabric is therefore disposed upon an exterior surface of the duct and an interior surface of the duct to be in contact with a stream of gaseous fluid.

With regard to Claims 9 – 10, the body of polymeric material is a tube, and is therefore a duct, as stated above, and is therefore configured to retain a liquid, thereby defining a tank.

With regard to Claim 12, the body of polymeric material is a tube, and is therefore a conduit, as stated above, and is therefore configured to retain a communication line therein.

With regard to Claims 13 – 14 and 22 – 24, Guckert et al discloses the interchangeability of textiles and foil in the making of the vessel (paragraph 0034) and discloses a metallic foil (paragraph 0039) and therefore disclose a layer of metallic material, which is a foil, disposed atop a surface of the exposed body of the refractory fabric.

With regard to Claims 15 – 16 and 25 – 28, Guckert et al disclose a metal comprising an aluminum – based material (paragraph 0038) and therefore discloses a woven material or foil which is an aluminum based material.

With regard to Claim 30, Guckert et al disclose the use of graphite fibers for the purpose of preventing distortion (paragraph 0035) and therefore disclose reinforcement material interposed between the layer of refractory fabric and metallic material.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 17, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guckert et al (U.S. Patent Publication 2002/0003004 A1) in view of Kraik (U.S. Patent No. 5,485,870).

Guckert et al disclose a tube for a fluid comprising a layers of fabric, therefore adhesively bonded, as discussed above. With regard to Claims 17, 29 and 31, Guckert et al fail to disclose a fabric comprising glass fiber material.

Kraik teaches the use of glass fiber material (fiberglass; column 3, lines 32 – 45) in a tube for a fluid (hose; column 1, lines 4 – 10) for the purpose of obtaining a tube which transmits under high pressure (column 1, lines 4 – 10). One of ordinary skill in the art would therefore have recognized the advantage of providing for the glass fiber material of Kraik in Guckert et al, which comprises a tube for a fluid, depending on the desired pressure of transmission of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a glass fiber material in Guckert et al in order to obtain a tube which transmits under high pressure as taught by Kraik.

ANSWERS TO APPLICANT'S ARGUMENTS

7. Applicant's arguments regarding the 35 U.S.C. 102(b) rejection of Claims 1 – 16, 22 – 28 and 30 as being anticipated by Guckert et al (U.S. Patent Publication 2002/0003004 A1) and 35 U.S.C. 103(a) rejection of Claims 17, 29 and 31 as being unpatentable over Guckert et al (U.S. Patent Publication 2002/0003004 A1) in view of Kraik (U.S. Patent No. 5,485,870), of record in the previous Action, have been carefully considered but have not been found to be persuasive for the reasons set forth below.

Applicant argues, on page 7 of the remarks dated July 28, 2006, that Guckert et al do not disclose a fabric that is disposed upon a surface of a vessel, and is not exposed on another

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surface of the vessel. However, as stated above, a fabric that is disposed upon a surface of a vessel, and is not exposed on another surface of the vessel is disclosed by Guckert et al.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497.

The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marc Patterson 10/2/06

Marc A. Patterson, PhD.
Primary Examiner
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